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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,851	11/26/2002	William Edward Jennings	1700.125	3373
21176	7590	08/01/2005	EXAMINER	
SUMMA & ALLAN, P.A. 11610 NORTH COMMUNITY HOUSE ROAD SUITE 200 CHARLOTTE, NC 28277			SODERQUIST, ARLEN	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/065,851

**Applicant(s)**

JENNINGS, WILLIAM EDWARD

**Examiner**

Arlen Soderquist

**Art Unit**

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-50 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5-13-03, 5-16-03.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

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1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for optically adjusting the microwaves applied to the source of claim 5 and the single integral piece of claim 46 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The disclosure is objected to because of the following informalities: on page 11 in the space between paragraphs 39-40 there appears to be some sort of note or heading that does not fit.

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Appropriate correction is required.

4. Claim 46 objected to because of the following informalities: it appears that "single" was intended. Appropriate correction is required.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 11, 22-23, 45 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (US 6,086,826). In the patent Thomas teaches a pressure sensing reaction vessel for microwave assisted chemistry. The microwave vessel system is for external and noninvasive pressure monitoring and control and comprises a reaction vessel formed of a material that is transparent to microwave radiation, with the reaction vessel including a portion that is movable under pressure generated by a chemical reaction inside the vessel while maintaining the reaction sealed inside the vessel. A sensor is adjacent to the movable portion of the vessel for detecting the motion of the movable portion as the portion responds to pressure generated inside the vessel. The system includes a structure for maintaining the sensor against the movable portion while microwaves are applied to the vessel so that the movement of the movable portion under pressure is detected by the sensor. Column 4, lines 51-67 teach the seal and its ability to be deformed (flexed) sufficiently to allow a venting (soft failure) of the vessel. Columns 5-6 teach the pressure sensor and means to place it in the system to provide a force against which the seal moves. Column 7 teaches type of microwave sources and responses to the pressure measurement.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claims 3-6, 8-10, 12-21, 24-43, 46, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas as applied to claims 1-2, 11, 22-23, 45 and 47 above, and further in view of Zischka. Thomas does not teach the additional structure and method steps.

In the paper Zischka discloses closed vessel microwave-assisted wet digestion with simultaneous control of pressure and temperature in all vessels. A novel system for microwave-assisted wet digestion in closed vessels is described. Six pressure vessels made of quartz or Hostaflon TFM are placed in a special rotor in a microwave oven. During sample decomposition the pressure and temperature are measured in each vessel, and the data are transferred from the rotor by IR light to the control unit. This means that no pneumatic or electronic connections to the vessels need to be established, providing very easy handling. The temperature history of each vessel is recorded; so the progress of each sample digestion may be reconstructed later on. Thus the requirements for quality control in sample digestion are available for the first time. For sample digestion at 75 bar and  $\leq 280^{\circ}$ , quartz vessels with 50 mL volume are used. Depending on the matrix, the maximum sample loading capacity is 1.2 g. TFM-vessels with 100 mL volume work at 30 bar  $\leq 240^{\circ}$ . The performance of the digestion system was tested with 12 standard reference materials. The results closely matched the certified values. the experimental section provides a discussion of the structures used and the benefits thereof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the connections for measuring pressure and additional method steps as taught by Zischka into the device and method of Thomas because of the ability to measure the pressure and temperature of a plurality of vessels undergoing treatment as shown by Kischka.

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9. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The art of record fails to teach or fairly suggest the motor and ram structure in combination with the other claimed elements.
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited art relates to microwave assisted chemistry and the structures used therein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arlen Soderquist whose telephone number is (571) 272-1265. The examiner can normally be reached on Monday-Thursday and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Arlen Soderquist

ARLEN SODERQUIST  
PRIMARY EXAMINER